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Understanding Instructional Outcome Options for Students with Learning Disabilities in Content Classes

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Abstract

This study documents and analyzes a range of instructional outcomes for reconceptualizing student success in content classes. These options are applicable for all students, but may be particularly appropriate or critical for students with learning disabilities. Traditional views of success in content classes have been based on grades and passing tests, but we take a more focused approach that addresses specific mastery of knowledge forms (specific concepts selected from the curriculum) and response demands (intellectual operations) with various assessment formats. Two eighth-grade teachers each taught two sessions of social studies with approximately 35 students per period. Specific measures were designed to test the knowledge forms and intellectual operations used in instruction. Both selection (multiple choice) and production (short answer and extended essay) responses were used in these measures. Students were assessed twice (prior to and following the workshop). The results were analyzed both within units and as change (gain) z-scores. Follow-up analyses were conducted to ascertain differences between special and general education students' performance, as well as between intellectual operations by response formats. The results support a more refined analysis of outcomes, providing teachers a range of options for reporting performance that is more instructionally focused and sets the stage for evaluating change over time. While these outcomes may appear easily possible, they may however, make little sense until the roles and responsibilities of special education teachers in middle and high schools are clarified or modified.

Currently, the special education literature is devoting increasing attention to supporting students with disabilities in content classes. Science and social studies are the two major subject areas in which research and practice are discussed. For example, Scruggs and Mastropieri (1993) and Mastropieri and Scruggs (1992) describe a number of program options in science education for students with disabilities. In light of a national education goal for U.S. students' to be first in the world in science and mathematics achievement and the zeitgeist for including students with disabilities in general education environments, thoughtful consideration of science programs for students with disabilities is critical. Yet, social studies also is a content area for integrating students with disabilities. Using the criteria of Edgar and Polloway (1994), schools need to offer comprehensive programs that "are derived from a realistic appraisal of potential adult outcomes of individual students" (p. 445). Yet, if "a primary purpose of social studies instruction is the development of informed citizens who are open-minded, committed to the resolution of societal problems and inequities, and who participate effectively in the democratic process," the curricula and programs for students with disabilities are likely questionable (Curtis, 1991, p. 171). To support students with disabilities in content classes, increased attention needs to be devoted to the issues of instructional focus and outcome options, whether science or social studies is considered more important.

Presently, programs for students with learning disabilities range from a pull-out focus on basic reading, writing, and math skills to inclusive programs in which specialists help support students using a wide range of study skills. The

problem in crafting an appropriate service delivery system appears to be the concurrent need to focus on *both* basic skills and content knowledge. As Espin and Deno (1993a, 1993b) aptly demonstrate, the reading proficiency of general education students may be well above that attained by most middle and high school students in special education programs. Clearly, basic reading and writing skills are needed in content classes and, though correlations are moderate between these basic skills and other indicators of achievement (content achievement and proficiency, grade point average, and study tasks), a retained focus on basic skills may be important.

Nevertheless, as indicated by the rhetoric of inclusion appearing in the special education literature, instructional programs are increasingly being based in general education classrooms. "Trends in school reform in the 1990s are more consistent with the Shaw et al. (1990) recommendations for an inclusionary model that provides more appropriate education for students with disabilities in the context of the total system" (Morsink & Lenk, 1992, p. 34). Yet, as Nolet and Tindal (1992) note, in secondary schools setting basically defines the program (curriculum and instruction). Few general education content teachers focus on the basic skills needed by students with disabilities and few special education teachers have the content expertise to provide instruction in various subject areas. As a consequence, "content enhancements" have become the focus of many secondary classroom and program supports. They have been defined as "techniques used by the teacher to identify, organize, comprehend, and retain critical content information" (Hudson, Lignugaris-Kraft, & Miller, 1993, p. 107). These authors divide the various enhancement systems into seven types (advance organizers, visual displays, study guides, mnemonics, audio recordings, computer-assisted instruction, and peer-mediated instruction). Interestingly, most of the research in these strategies has focused on input (what and how to

teach) with relatively little emphasis on measurement of learning (what and how students should perform). Indeed, the Hudson et al. (1993) review displays individual study outcome measures that generally emphasize declarative knowledge and fact acquisition. As they note, "most enhancements are designed to foster recall of factual information rather than provide opportunities for students to analyze, synthesize, and apply content information" (p. 124).

In this study, we take a slightly different tack in which assessment is the key issue, particularly in reference to understanding outcome options. Rather than investigating the outcomes of either support system (basic skills or various content enhancements), we are interested in understanding the range of outcomes possible in content classes. Then, as specialists define their roles and responsibilities, they may select from among a wider range of support systems, including both instruction and measurement.

While we want to emphasize authentic thinking tasks, including problem solving and critical thinking skills, we also realize that, as Cheney (1987) reports, "the culprit is 'process'--the belief that we can teach our children how to think without troubling them to learn anything worth thinking about, the belief that we can teach them how to understand the world in which they live without conveying to them the events and ideas that have brought it into existence" (p. 5). Student knowledge is viewed as existing along a continuum from declarative to conditional and procedural knowledge (Alexander & Hare, 1989; Paris, Lipson, & Wixson, 1983; Ryle, 1949). "When we know something (be it content, linguistic, or otherwise), we can know not only factual information about it (declarative knowledge), but also how to use such knowledge in certain processes or routines (procedural knowledge). We also can understand when and where this knowledge would be applicable (conditional knowledge)" (Alexander, Schallert, & Hare, 1991, p. 323). These three types of knowledge generally are

viewed as being distinct: Acquisition in one form does not automatically translate or transfer into acquisition in the other forms. "Thus it is certainly possible to know the what of a thing without knowing the how or when of it" (p. 323). Similarly, Skemp (1978) distinguishes between relational understanding (knowing what to do and why) and instrumental understanding (knowing rules without reasons). We also have borrowed a conception of knowledge structure from Alexander, Schallert, and Hare (1991) in which content knowledge is divided into domain (broader and more general information that is subject bound) and discipline (specific and highly specialized information that is acquired only over time and study), hierarchically organized (discipline is a subset of domain). In our research, we primarily are focused on domain knowledge for students.

This general focus becomes critical in the support that specialists provide students in secondary settings. Typically, more than half of a student's grade is based on test performance and about half the time these tests are made by teachers (Putnam, 1992). Teacher-constructed tests are rarely shared with special educators. It is difficult to supplement content area instruction when the terminal task (i.e., test) is unknown. To achieve parity for special education students in secondary content classes, not only in passing classes (Zigmond, Levin, & Laurie, 1985) but in achieving satisfactory performance (Donahoe & Zigmond, 1990), attention to student outcomes is critical: what information to emphasize, how to format tasks to capture both declarative and procedural-conditional knowledge, and how to value performance in technically adequate ways.

Although any of the content enhancement options can supplant or supplement content instruction, and may be provided by either the content or specialist teacher, these strategies have little bearing on how to measure

performance. They essentially begin with a general assumption of acceptance of content "as is" and do not directly address the issue of success or outcomes. For example, few rules exist to help specialists select key ingredients from the content curriculum or interactive teaching. And no strategies integrate either the content or the enhancements with performance.

One of the few studies to concurrently describe an enhancement strategy anchored to "thinking tasks" was reported by Scruggs, Mastropieri, Bakken, and Brigham (1993), in which 7th and 8th grade students were taught science using two different instructional approaches (hands-on activity versus textbook-based) in successive units. Importantly, the end-of-unit test included 24 items (8 items of each type) that assessed factual recall, application (a kind of applied problem-solving task), and vocabulary production. They found that vocabulary items were least well-learned and were significantly lower than either factual recall or application (on both an immediate and delayed test). However, no differential change in performance on any of these (sub)measures was reported.

In the following study, our primary goal is to describe a system in which content is organized and integrated with performance, providing a template in which these more focused strategy and instructional support systems can be implemented. The study is not designed to judge the worth of any content enhancement systems (although one of them, graphic organizers, is used); rather, the purpose is to extend their application to issues of outcome options. We propose addressing two critical issues in this study within a larger framework of integrating knowledge of content (forms) and displays of performance outcomes (focusing on both declarative and procedural knowledge). In particular, we investigate the impact of three dimensions of performance

outcomes: (a) student status, defined as need for special support, (b) measurement format (either selection or production), and (c) intellectual operation (type of problem-solving).

Methods

The study was conducted in the spring in a middle school with approximately 450 students. It took about one month to complete, and included two units in social studies, grade eight.

Subjects

Two eighth-grade teachers volunteered to participate. One of these teachers had 30 years of teaching experience and the other had 34 years. Both had taught at this school for the past 15 years. Students with special needs participated in each teacher's classroom, though the model of support for students with mild learning disabilities included pull-out for basic skills instruction in reading, writing, and math.

The student population was comprised of 142 students, with 71 girls and 71 boys. They were divided into four class periods, two in the morning and two in the afternoon. Of this group, the great majority of students did not receive any instructional support: (a) eight students had been identified with learning disabilities, (b) two were receiving Chapter 1 support in reading, and (c) four students were identified with special talents and received pull-out instruction in a computer lab once per week. Basic school information is provided in Table 1, including absences, grade point average (GPA), social studies grades, and scores on the Stanford Achievement Test (SAT) for each of the students in the four classrooms. In the analyses eventually performed, we included only students in general and special education (excluding Chapter 1 and Talented and Gifted).

Table 1. Student Demographics on Categorical and Continuous School Context Variables

Support Services	*Count*
Chapter 1	2
General Education	132
Special Education	8
Total	142

Special Education Assist Areas (137 cases are not applicable)	
Language Arts, Speech	1
Reading	2
Reading, Language Arts, Speech	1
Reading, Math, Language Arts, Speech	1
Total	142

Student Sex	
Female	71
Male	71
Total	142

Social Studies Class	
Morning	69
Afternoon	73
Total	142

Absence by Status (8 cases were omitted due to missing values)-NSD

	Count	Mean	Std. Dev.	Std. Err.
Chapter 1	2	2.5	.7	.5
General Education	130	4.4	4.7	.4
Special Education	3	8.0	8.2	4.7

GPA by Status (8 cases were omitted due to missing values)-NSD

	Count	Mean	Std. Dev.	Std. Err.
Chapter 1	2	2.5	.3	.2
General Education	130	2.9	.9	.1
Special Education	3	2.5	.6	.4

Social Studies Grade by Status (22 cases were omitted due to missing values)-NSD

	Count	Mean	Std. Dev.	Std. Err.
Chapter 1	2	1.5	.7	.5
General Education	118	2.7	1.2	.1
Special Education	1	3.0	•	•

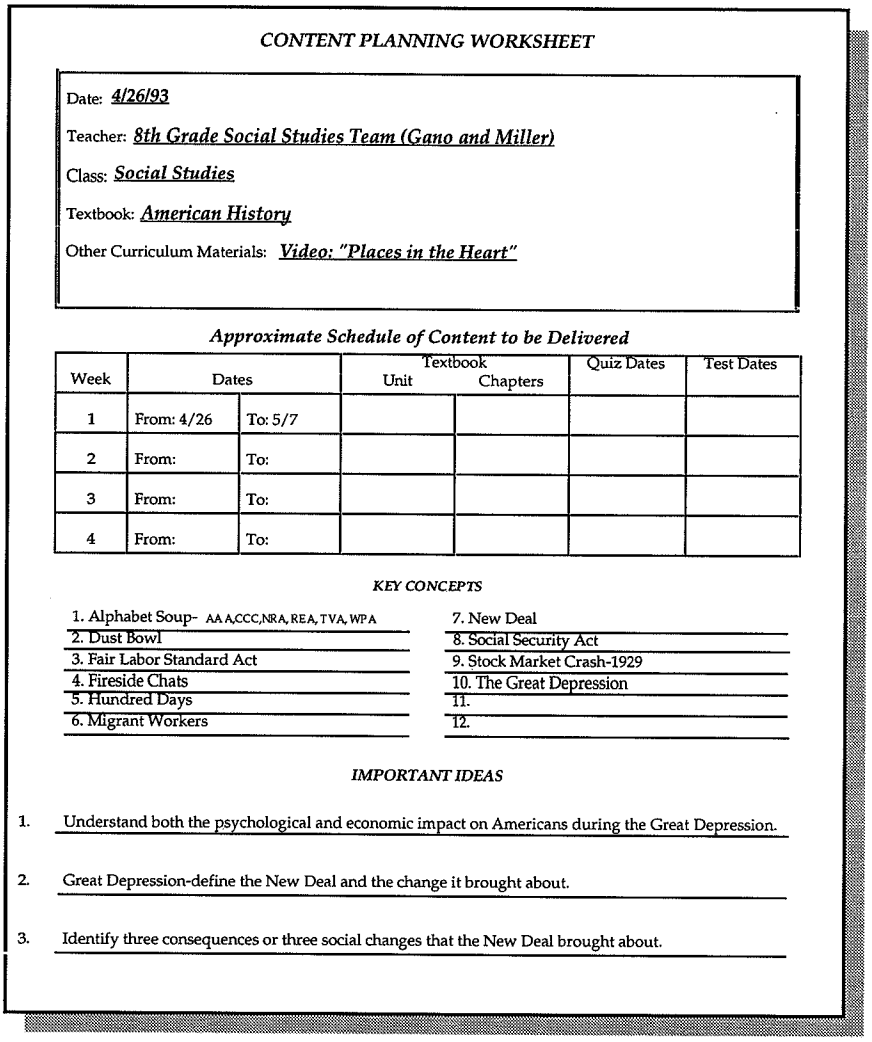
	Absent	GPA	Soc Grade	RD Comp SAT	Vocab SAT
Count	135	135	121	139	139
# Missing	8	8	22	4	4
Mean	4.4	2.8	2.7	541.1	545.8
Std. Dev.	4.7	.9	1.2	268.3	270.2
Std. Error	.4	.1	.1	22.8	22.9
Minimum	0.0	0.0	0.0	0.0	0.0
Maximum	25.0	4.0	4.0	752.0	758.0

Measures

Several different measures were developed for use both prior to and following the development of graphic organizers depicting a problem-solving schema. Each measure was anchored to the content of the chapter using key concepts jointly identified by the teachers. The list of concepts identified by the two teachers were not identical, but only concepts common to both lists were analyzed. Key concepts were identified using a content planning worksheet (Tindal, Nolet, & Blake, 1992), in which teachers identified the concept label, critical attributes, examples (and nonexamples) and important principles. Both units were taught using *American History* (Garraty, Singer, Gallagher, 1982).

The unit taught before the use of graphic organizers focused on the *Great Depression* (pp. 737-771) and included concepts such as the *Stock Market Crash, the Great Depression, Fair Labor Standard Act, Hundred Days, New Deal, Fire Side Chats, and the Social Security Act.* Using a historical approach, this text traces the series of events surrounding the Great Depression. A consistent theme underlying the description is the effect of various government programs on the American economy. The chapter begins with a definition of typical business cycles and moves quickly into a discussion of the Depression, including President Hoover's growing unpopularity. A detailed summary of Roosevelt's popularity and rise to the presidency follows, with a special focus on the birth of his New Deal during the first hundred days of his term in office. Then, a thorough list of reforms and acts is defined. The popularity of the New Deal and criticisms of it are juxtaposed; the Second New Deal and the impacts of these reforms on blacks are then discussed. Finally, the end of the New Deal, including the political struggles between the president, Congress, and the Supreme Court, and a summary of its overall importance are presented.

The unit following teacher reorganization based on a concept analysis and use of graphic organizers focused on World War II (pp. 774-804) and included two common concepts across the two teachers (world war and war technology) and various related concepts which varied slightly for each teacher (*genocide, isolationism, imperialism, totalitarianism, and retaliation*). This chapter explores the unfolding events of World War II. Using a historical approach, it traces America's shift from isolationism toward increasing support for the Allied powers, and finally, total involvement in the war. As the growing aggression of the totalitarian states of Germany, Italy, and Japan is described, America's reactions under Roosevelt are summarized, as are the changes in American sentiment about the neutrality controversy. A detailed description of the attack on Pearl Harbor is given; also treated are the experiences of blacks during the wartime, the experiences of Japanese-Americans, and technological advances. Finally, the chapter culminates with details of American war efforts in North Africa, Europe, and the Pacific. The chapter ends with a summary of the U.S. atomic bombing of Japan. The historical lineage approach builds on the perspective of American reactions and involvement. It is also conveys the nature of Franklin D. Roosevelt's political abilities and maneuvers, as well as the shifting attitudes and sentiments of the American public.



CONTENT PLANNING WORKSHEET

Date: *4/26/93*

Teacher: *8th Grade Social Studies Team (Gano and Miller)*

Class: *Social Studies*

Textbook: *American History*

Other Curriculum Materials: *Video: "Places in the Heart"*

Approximate Schedule of Content to be Delivered

Week	Dates		Textbook Unit	Textbook Chapters	Quiz Dates	Test Dates
1	From: 4/26	To: 5/7				
2	From:	To:				
3	From:	To:				
4	From:	To:				

KEY CONCEPTS

1. Alphabet Soup- AAA,CCC,NRA, REA, TVA, WPA
2. Dust Bowl
3. Fair Labor Standard Act
4. Fireside Chats
5. Hundred Days
6. Migrant Workers
7. New Deal
8. Social Security Act
9. Stock Market Crash-1929
10. The Great Depression
11.
12.

IMPORTANT IDEAS

1. Understand both the psychological and economic impact on Americans during the Great Depression.
2. Great Depression-define the New Deal and the change it brought about.
3. Identify three consequences or three social changes that the New Deal brought about.

Figure 1. Sample Content Planning Worksheet.

Problem-solving tests were administered after each instructional unit. A facts test was given by one teacher before and after each unit (Depression and WWII). This facts pretest was a 25-item multiple-choice measure with items drawn directly from the curriculum. A two-part problem-solving test (Able) was developed that included 6 multiple-choice items reflecting the intellectual operations of evaluation, prediction, and application (each with 2 items) and 3 essay questions reflecting the same intellectual operations (with one of each type). In the second unit (WWII), another 25-item curriculum-embedded,

multiple-choice facts test was used (and again administered before teaching the unit and following the unit). Again, a two-part problem-solving test (Europe) was created with 5 multiple-choice items (2 application and 3 prediction items) and 2 short answer essay questions (one each of application and prediction/evaluation). Finally, an extended evaluation essay question (Trestia) was given at the end of this unit.

Procedures

The instructional program was curriculum-based (i.e., text-based) and predominantly consisted of lectures and films. The first unit focused on declarative knowledge with an emphasis on specific facts; the follow-up intervention was organized around the concepts noted earlier and integrated around graphic organizers that related the following principles:

- Using a problem-solution-effect design, teachers taught "Human disasters create national disasters (problem), which in turn lead to economic disasters (solution) and finally economic reform (effect)."
- The same problem-solution-effect design related "totalitarian governments (problem) to expanding boundaries (solution), and eventually total war (effect)."
- A concept web was used to depict war technology in air, on land, and in the seas.
- A cycle was depicted relating war technology to nationalism, genocide to expanded boundaries, and finally to improved economies.

Analyses

Several statistics were calculated: (a) descriptive statistics for different subgroups of students (special and general education students) for both items and concepts, and (b) cross-tabulations to ascertain the co-joint relationship between student status, concept mastery, and intellectual operation. First, the totals for each type of test (pre and post) were summarized for students in special and general education. Second, item analyses were completed for specific knowledge forms and measurement formats. Third, individual test items were clustered and scores for concepts reported for special and general education students, as well as cross-tabulating the relationship between performance on multiple-choice and essay responses. Finally, change in relative standing was computed using standard scores for the curriculum fact test and the problem-solving test we had devised (both multiple-choice and essay response). When collapsing performance within knowledge forms or intellectual operations, student responses to the multiple-choice items were aggregated into three groups (all, some, or none), reflecting the number of items answered correctly. For the essays, performance was rated as excellent (a score of 5 or 6), adequate (the middle range of scores from 2 to 4 or 5), or minimum (0 or 1). Student essays were scored according to the number of thought units generated in the 15-minute essay writing period. For an explanation of t-unit scoring, see Tindal, Nolet, and Blake (1993).

Results

For the first unit, four different outcomes are reported: a fact test on the Great Depression, a total score for a problem-solving test that was organized according to intellectual operations, a multiple-choice subtest from this problem-solving test, and an extended essay performance within this problem-solving test (again

linked to intellectual operations). On the fact pretest (about the Great Depression), two versions were administered 10 days apart (exact forms of a 25-item test requiring students to select specific associations between names, dates, and events). Although all students improved from time 1 to time 2, this change was far greater for general than special education students. This change was significant, and no interaction was present between time and student status. Even though special education students did not improve much, a great decrease in variance was obvious from the first to the second testing.

On the problem-solving test, administered only at the end of the unit, the difference between special and general education approached significance, with virtually no difference resulting from the multiple-choice part and considerable difference apparent from the essay part. When investigating the relationship between these different (sub)tests, we found almost no correlation, either between the facts and problem-solving tests or between the different parts of the problem-solving (sub)tests. At best, a high-moderate correlation existed between application and prediction essay performance, though neither correlated highly with an evaluation essay response.

Table 2. Descriptive Statistics on the First Unit for Special and General Education and Correlation Between Tests

Depression Pre-Post Performance (Btwn S: F= .18, p= .67/Within S: F= 21.3, p <.0001/BxS: F= .96)

	Count	Mean	Std. Dev.	Std. Err.
Special Education, Dep-Pre	3	12.0	6.083	3.5
Special Education, Dep-Post	3	13.3	3.055	1.8
General Education, Dep-Pre	33	9.5	4.191	.7
General Education, Dep-Post	33	14.3	4.303	.7

Able-Total Score

(F= 3.1, p= .08)	Count	Mean	Std. Dev.	Std. Err.
Special Education	8	5.5	1.7	.6
General Education	76	7.0	2.3	.3

Able-Total Multiple Choice Score

(F= 0.0)	Count	Mean	Std. Dev.	Std. Err.
Special Education	8	2.3	1.4	.5
General Education	76	2.3	1.1	.1

Able-Total Essay Score

(F= 4.1, p= .04)	Count	Mean	Std. Dev.	Std. Err.
Special Education	8	3.3	1.4	.5
General Education	76	4.7	2.0	.2

Correlation Matrix (n=36) Among Able and Depression Measures

	Able-MC Total	Able-Essay Total	Dep-Post
Able-MC Total		-.096	.140
Able-Essay Total			.247
Dep-Pre			.043

Eval: MC-ES	.21 (.08 corrected for ties)
Apply: MC-ES	.15 (-.08 corrected for ties)
Predict: MC-ES	.33 (.04 corrected for ties)
Essay: Eval-Apply	.23 (.10 corrected for ties)
Essay: Eval-Pred	.31 (.07 corrected for ties)
Essay: Apply-Pred	.57 (.41 corrected for ties)

The results from the second instructional unit were nearly parallel to those from the first one. Again, both special and general education students improved from time 1 to time 2 on the facts tests, with this difference significant overall but not according to student status. In contrast to the change in variance for special education students in the facts pretest, no such change occurred in the facts posttest. Again, no significant difference appeared between students on the problem-solving test. Significant differences appeared between special and general education students on the multiple-choice (sub)test, but not on the short answer essay (sub)test, a finding in direct contrast to those from the earlier unit. On an extended answer essay, the difference between student groups was significant on overall quality, but not on the number of thought units. When the different measures were intercorrelated (according to intellectual operations and measurement format), performance on the multiple-choice problem-solving items was neither related to performance on the facts multiple-choice test nor the essay questions. Furthermore, performance on the two essay problems was substantially uncorrelated. Only a low relationship existed between the quality of an evaluation problem-solving essay response and the average of performance across application and prediction essays.

Table 3. Descriptive Statistics on Second Unit for Special and General Education and Correlation Between Tests

World War II Facts Test

(F= 3.1, p= .08)	Count	Mean	Std. Dev.	Std. Err.
Special Education, WWIIB	2	13.0	7.1	5.0
Special Education, WWIIA	2	14.5	7.8	5.5
General Education, WWIIB	32	9.8	3.6	.6
General Education, WWIIA	32	13.7	4.0	.7

Europe-Total Score

(F= .02, p= .89)	Count	Mean	Std. Dev.	Std. Err.
Special Education	5	6.0	2.3	1.0
General Education	64	6.1	2.1	.3

Europe-Total Multiple Choice Score

(F= .02, p= .89)	Count	Mean	Std. Dev.	Std. Err.
Special Education	5	3.0	1.0	.4
General Education	64	3.1	1.2	.1

Europe-Total Essay Score

(F= .006, p= .94)	Count	Mean	Std. Dev.	Std. Err.
Special Education	5	3.0	1.9	.8
General Education	64	3.1	1.7	.2

Trestia-Total Evaluation Essay Score-Quality

(F= 4.4, p= .04)	Count	Mean	Std. Dev.	Std. Err.
Special Education	7	1.7	.5	.2
General Education	48	2.4	.8	.1

Trestia-Total Evaluation Essay Score-No. Thought Units

(F= 1.5, p= .23)	Count	Mean	Std. Dev.	Std. Err.
Special Education	7	3.1	2.7	1.0
General Education	48	4.4	2.4	.4

Correlation Matrix (n=31) Among Europe and World War II Measures

	TresQ	TresTU	AplMC	PrdMC	MC-TOT	ES-TOT	WWIIA
TresQ		.475	-.253	.063	-.102	.319	.284
TresTU			-.285	.271	.012	.197	.485
AplMC				.404	.815	-.168	.023
PrdMC					.860	.042	.501
MC-TOT						-.067	.330
ES-TOT							.176
WWIIA-R							

Based on a very detailed analysis of individual items on the first unit (anchored to specific knowledge forms and intellectual operations), comparisons were made between special and general education. In general, the proportions were quite similar, with two items slightly different (one application and one prediction item). In the distribution of scores for the combined multiple-choice problems, significant differences appeared between the lowest values (fewer with none correct) for the evaluation problem and the highest values (fewer with all correct) for the application and prediction problems. A similar difference was found between the evaluation and either application or prediction problems with the short answer essays, with scores higher for the former type. In all of these comparisons, the differences between special and general education were not significant.

Table 4. Item Analysis of Concepts in the First Unit by Student Status and Measurement Format

FIRST UNIT ABLE: MULTIPLE CHOICE ITEM DISTRIBUTIONS

1. Evaluation/Social Reforms

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	22	26.2	2	25.0	20	26.3
1	2	62	74.8	6	75.0	56	73.7

2. Evaluation/Social Reforms

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	46	54.8	5	62.5	41	53.9
1	2	38	45.2	3	37.5	35	46.1

3. Application/Economic Stability

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	65	77.3	4	50.0	61	80.2
1	2	19	22.6	4	50.0	15	19.7

4. Application/Work Reform

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	64	76.2	6	75.0	58	76.3
1	2	20	23.8	2	25.0	18	23.7

5. Prediction/Economic Reform

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	47	55.9	6	75.0	41	53.9
1	2	37	44.0	2	25.0	35	46.1

6. Prediction/Legislative Reform

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	71	84.5	7	87.5	64	84.2
1	2	13	15.5	1	12.5	12	15.8

FIRST UNIT-ABLE: PROBLEM-SOLVING ESSAY

Descriptive Statistics (for 84 students)	Eval (NSD)	Apply (NSD)	Pred (NSD)
Combined Mean	2.0	1.5	1.2
Combined Std. Dev.	1.0	1.1	.8
Std. Error	.1	.1	.1
Maximum	5.0	4.0	4.0
Special Education (n=8)			
Mean	1.5	0.9	.9
Std. Dev.	1.1	.4	.4
General Education (n=76)			
Mean	2.0	1.5	1.2
Std. Dev.	1.0	1.1	.9

Instead of looking at individual items, which may be inaccurate because of limited behavior sampling, the next analysis is based on averages of item clusters within concepts. First, students are classified as having answered none, some, or all of the multiple-choice items within each intellectual operation or as having written excellent (top score), adequate (mid-range score), or minimum (bottom score) responses on the essay. These analyses are completed for special and general education. Second, the relationship between responses on the multiple-choice and essay responses are cross-tabulated within intellectual operations.

On the first unit, the distributions and proportions are similar for both special and general education students. The results reflect those found with individual item analyses reported in Table 4. On the first unit, both general and special education students performed better on both the multiple-choice and short answer essay evaluation items. The pattern of relationship between performance on the multiple-choice and essay problems, though not statistically significant, followed the pattern that was expected: Most students who correctly answered some of the multiple-choice items also wrote adequate essays. Interestingly, a few students in either general and special education, did not fit this pattern: They either scored no multiple-choice items correct, yet were rated with excellent essays, or they wrote minimum essays even though they had answered all the multiple-choice items correct.

Table 5. Cluster Analysis of Concepts in First Unit by Student Status and Measurement Format

Evaluation (Multiple Choice/% of row totals)

(χ^2 = .17, p= .68)	None (%)	Some (%)	All (%)	Totals
Special Education	1 (12.5)	7 (87.5)	0 (0.0)	8
General Education	14 (18.4)	62 (81.6)	0 (0.0)	76
Totals	15	69	0	84

Application (Multiple Choice/% of row totals)

(χ^2 = 2.00, p= .37)	None (%)	Some (%)	All (%)	Totals
Special Education	3 (37.5)	4 (50.0)	1 (12.5)	8
General Education	47 (61.8)	25 (32.9)	4 (5.3)	76
Totals	50	29	5	84

Prediction (Multiple Choice/% of row totals)

(χ^2 = 1.2, p= .55)	None (%)	Some (%)	All (%)	Totals
Special Education	5 (62.5)	3 (37.5)	0 (0.0)	8
General Education	34 (44.7)	37 (48.7)	5 (6.6)	76
Totals	39	40	5	84

Evaluation (Essay/% of row totals)

(χ^2 = 1.1, p= .59)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
Special Education	0 (0.0)	5 (62.5)	3 (37.5)	8
General Education	2 (2.6)	57 (75.0)	17 (22.4)	76
Totals	2	62	20	84

Application (Essay/% of row totals)

(χ^2 = 4.4, p= .11)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
Special Education	0 (0.0)	0 (0.0)	8 (100.0)	8
General Education	2 (2.6)	26 (34.2)	48 (63.2)	76
Totals	2	72	10	84

Prediction (Essay/% of row totals)

(χ^2 = 1.4, p= .22)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
Special Education	0 (0.0)	0 (0.0)	8 (100.0)	8
General Education	0 (0.0)	12 (15.8)	64 (84.2)	76
Totals	0	12	72	84

Evaluation (Multiple Choice with Essay/% of row totals)

(χ^2 = 1.6, p= .45)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
None	1 (6.7)	10 (66.7)	4 (26.7)	15
Some	1 (1.4)	52 (75.4)	16 (23.2)	69
Totals	2	62	20	84

Application (Multiple Choice with Essay/% of row totals)

(χ^2 = 3.9, p=.41)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
None	2 (4.0)	16 (32.0)	32 (64.0)	50
Some	0 (0.0)	10 (34.5)	19 (65.5)	29
All	0 (0.0)	0 (0.0)	5 (100.0)	5
Totals	2	26	56	84

Prediction (Multiple Choice with Essay/% of row totals)

(χ^2 = .99, p=.61)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
None	0 (0.0)	4 (10.3)	35 (89.7)	39
Some	0 (0.0)	7 (17.5)	33 (82.5)	40
All	0 (0.0)	1 (20.0)	4 (80.0)	5
Totals	0	12	72	84

The same analysis of individual items for the second unit was partially consistent with the findings that appeared with the first unit. The proportions of special and general education students passing and failing different items was generally similar. Students were almost equally split between correct and incorrect responding on the application and prediction items. Performance on the two essays was generally low and comparable (below 2) to that attained on the earlier unit (this time, however, with higher ratings on the prediction than application essay).

Table 6. Item Analysis of Concepts in the Second Unit by Student Status and Measurement Format

Application (Isolationism)

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	29	42.0	2	40.0	27	42.2
1	2	40	58.0	3	60.0	37	57.8
	Total	69	100.0	5	100.0	64	100.0

Prediction (Totalitarianism)

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	13	18.8	2	40.0	11	17.2
1	2	56	81.2	3	60.0	53	82.8
	Total	69	100.0	5	100.0	64	100.0

Prediction (Genocide)

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	33	47.8	2	40.0	31	48.4
1	2	36	52.2	3	60.0	33	51.6
	Total	69	100.0	5	100.0	64	100.0

Application (National Socialism-Nazi Party)

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	35	50.7	3	60.0	32	50.0
1	2	34	49.3	2	40.0	32	50.0
	Total	69	100.0	5	100.0	64	100.0

Prediction (Blitz Kreig of Nazi Party)

From (≥)	To (<)	Tot Cnt	Tot %	Spec Cnt	Spec %	Gen Cnt	Gen %
0	1	23	33.3	1	20.0	22	34.4
1	2	46	66.7	4	80.0	42	65.6
	Total	69	100.0	5	100.0	64	100.0

Descriptive Statistics on Essay Responses

	Mean	Std. Dev.	Std. Error	Count	Minimum	Maximum	# Missing
Apl.-Economy, Total	1.2	1.4	.17	69	0.0	5.0	23
Spec Ed	1.2	1.6	.73	5	0.0	4.0	4
Gen Ed	1.2	1.4	.18	64	0.0	5.0	19
Pred.-Total., Total	1.9	1.0	.12	69	0.0	4.0	23
Spec Ed	1.8	.5	.20	5	1.0	2.0	4
Gen Ed	1.9	1.1	.13	64	0.0	4.0	19

Few differences (among the intellectual operations) appeared in the distributions for concept clusters for the various intellectual operations. Most students correctly answered some of the multiple-choice items correctly; they also wrote generally adequate essays. Importantly, the relative proportions were similar for general and special education. All crosstabulations of performance on multiple-choice items and essay problems were as expected: Few students with no items correct wrote an excellent essay and those who wrote minimum essays were rarely correct on all items. When comparing the two types of essay responses (application and prediction with evaluation), adequate responses for evaluation were attained with minimum responses on application; most prediction responses were adequate.

Table 7. Cluster Analysis of Concepts in Second Unit by Student Status and Measurement Format

Application (Multiple Choice)

(X^2 = .43, p= .81)	All (%)	Some (%)	None (%)	Totals
Special Education	1 (20.0)	3 (60.0)	1 (20.0)	5
General Education	20 (31.3)	29 (45.3)	15 (23.4)	64
Totals	21	32	16	69

Prediction (Multiple Choice)

(X^2 = .79, p= .67)	All (%)	Some (%)	None (%)	Totals
Special Education	1 (20.0)	4 (80.0)	0 (0.0)	5
General Education	22 (34.4)	39 (60.9)	3 (4.7)	64
Totals	23	43	3	69

Application (Essay/% of row totals)

(X^2 = 2.4, p= .29)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
Special Education	1 (20.0)	0 (0.0)	4 (80.0)	5
General Education	4 (6.3)	15 (23.4)	45 (70.3)	64
Totals	5	15	49	69

Prediction (Essay/% of row totals)

(X^2 = .12, p= .94)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
Special Education	0 (0.0)	4 (80.0)	1 (20.0)	5
General Education	1 (1.6)	48 (75.0)	15 (23.4)	64
Totals	1	52	16	69

Evaluation (Essay/% of row totals)

(X^2 = 1.1, p= .58)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
Special Education	0 (0.0)	5 (71.4)	2 (28.6)	7
General Education	2 (4.1)	39 (81.3)	7 (14.6)	48
Totals	2	44	9	55

Application (Multiple Choice with Essay/% of row totals)

(X^2 = 3.1, p= .54)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
All	0 (0.0)	5 (23.8)	16 (76.2)	21
Some	4 (12.5)	6 (18.8)	22 (68.8)	32
None	1 (6.3)	4 (25.0)	11 (68.8)	16
Totals	5	15	49	69

Prediction (Multiple Choice with Essay/% of row totals)

(X^2 = 1.4, p= .84)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
All	0 (0.0)	19 (82.6)	4 (17.4)	23
Some	1 (2.3)	31 (72.1)	11 (25.6)	43
None	0 (0.0)	2 (66.7)	1 (33.3)	3
Totals	1	52	16	69

Application (Essay) with Evaluation (Essay)/% of row totals)

(X^2 = 1.5, p= .82)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
EXEL	0 (0.0)	3 (100.0)	0 (0.0)	3
ADEQ	0 (0.0)	9 (81.2)	2 (18.2)	11
MINIM	2 (5.7)	27 (77.1)	6 (17.1)	35
Totals	2	39	8	49

Prediction (Essay) with Evaluation (Essay)/(% of row totals)

(X^2 = 2.6, p= .62)	EXCEL (%)	ADEQ (%)	MINIM (%)	Totals
EXCEL	0 (0.0)	1 (100.0)	0 (0.0)	1
ADEQ	1 (2.5)	33 (80.5)	6 (15.0)	40
MINIM	1 (12.5)	5 (62.5)	2 (25.0)	8
Totals	2	39	8	49

In the final analysis, change from the first to the second unit is ascertained. Because the multiple-choice and essay tests differed on the number of items and point values, all scores were standardized prior to computation of change scores. On five measures, a one-between (student status), one within (time) repeated measures analysis of variance was computed. Although the F ratios were generally not significant, the direction of change was educationally meaningful in several of these analyses. On the facts test, special education students moved from one-half standard deviation below the mean to above the mean. A similar, though less dramatic change resulted in the problem-solving multiple choice test. The most significant change occurred on the relative standing of special education students on the short answer problem-solving essay, in which student moved from well below the mean to very near it. This growth was not evident in a more extended problem-solving essay. Finally, in a post-test only analysis of variance comparing special and general education students, no significant difference appeared.

Table 8. Overall Outcomes on Total Standard Scores Across and Within Units for All Measures (SP=Special and GE=General)

Change on Fact Test Multiple Choice: Pre (Depression) to Post (World War II)-NSD

	Count	Mean	Std. Dev.	Std. Err.
Special Education, Depression (Pre)	2	-.404	.660	.467
Special Education, WWII (Post)	2	.192	1.788	1.265
General Education, Depression (Pre)	30	.094	1.074	.196
General Education, WWII (Post)	30	-.015	.921	.168

Change on Problem-Solving Multiple Choice: Pre (Able) to Post (Europe)-NSD

	Count	Mean	Std. Dev.	Std. Err.
Special Education, Able (Pre)	5	-.209	1.221	.546
Special Education, Europe (Post)	5	-.058	.875	.391
General Education, Able (Pre)	62	.042	.956	.121
General Education, Europe (Post)	62	.040	1.028	.131

Change on Problem-Solving Essay: Pre (Able) to Post (Europe)-NSD

	Count	Mean	Std. Dev.	Std. Err.
Special Education, Able (Pre)	5	-.665	.518	.232
Special Education, Europe (Post)	5	-.081	1.130	.506
General Education, Able (Pre)	62	.050	.963	.122
General Education, Europe (Post)	62	-.051	.999	.127

Change on Problem-Solving Essay: Pre (Able) to Post (Trestia)-SD with Status

	Count	Mean	Std. Dev.	Std. Err.
Special Education, Able (Pre)	7	-.759	.611	.231
Special Education, Trestia (Post)	7	-.732	.636	.240
General Education, Able (Pre)	46	.177	.954	.141
General Education, Trestia (Post)	46	.094	1.036	.153

Between Group Differences on Post Problem-Solving Essay (Thought Units)-NSD

	Count	Mean	Std. Dev.	Std. Err.
Special Education, Trestia (Post)	7	3.143	2.673	1.010
General Education, Trestia (Post)	48	4.354	2.428	.350

Discussion

The results argue for reconceptualizing success in content classes. Passing a test should not be considered the critical outcome; more specific content-based learning needs to be considered. Instead of learning facts (individual bits of information), understanding and producing larger and more content-embedded problem-solutions should be highlighted. However, before considering the educational contexts and implications of these findings, some cautions are in order.

Our study was premised on the separation of intellectual operations; in particular, we developed both multiple-choice and essay problems for evaluation, prediction, and application. This distinction may not be empirically defensible. Suffice it to say that the questions we placed on the problem-solving multiple-choice tests were not text-explicit; rather they required considerable inference to correctly complete. We also conducted analyses on single item scores, though performance may be quite unstable with such a limited sample. Certainly, with opportunity for guessing, interpretations of performance may be fallible. Finally, we conducted several analyses of variance, certainly compounding the error rates. And for some of these analyses, the sample size was low. Nevertheless, the findings are surprisingly cogent and reflect the need for more variation and precision in our outcome options.

Certainly, some students in special education perform at a level par with their general education counterparts. On the multiple-choice and essay formats, both groups score comparably. On the essay task, this finding is particularly encouraging. But as Espin and Deno (1993a, 1993b) note, many students with learning disabilities still need instruction in basic skills. By moving away from a multiple-choice to a written production responses, it should be possible to merge a dual focus on writing and reasoning. Rather than teaching writing as a stand-

alone skill, it can be taught in the service of problem-solving. In this conception, content information serves as the medium for problem-solving and reasoning.

This approach, however, requires a drastic shift in organizing content information from a compilation of facts to be memorized to an organized body of knowledge (of concepts and principles) that has utilitarian application (i.e., can be used in some way). By focusing on the big ideas and anchoring them to reasoning tasks (intellectual operations), greater opportunity exists for expanding this focus to include writing. Then, writing can be used to improve student domain knowledge (Alexander & Hare, 1989). Without this approach, writing is likely to be reduced to copying, either from the board in the form of note-taking or from the book in the form of assignments and homework.

The distinction between intellectual operations was somewhat supported (or at least the need for simply organizing information and framing text-implicit questions). For example, we crafted several measurement tasks that were intended to reflect a specific intellectual operation. The results revealed four interesting outcomes:

1. Application and prediction essays tended to be moderately-highly related and more so than either of them with an evaluation essay.

2. Both application and prediction essays were more difficult (with fewer students writing excellent and more students writing minimum responses).

3. The correlation between the follow-up short answer essays (reflecting application and prediction) and the extended response essay (Trestia) was moderately low. Again, it may be important to differentiate between evaluation and the other two intellectual operations (though these operations may be indifferentiable). Or, for example, in the second unit, though a great number of students performed adequately on the evaluation essay, they scored poorly on the application essay.

4. After the instructional unit was organized around key concepts (and operationalized with graphic organizers), the interrelationship among multiple-choice and essay responses was quite high (though it was not even moderate for the prior unit). Both findings argue for differentiation of format and intellectual operations.

Yet, when the format of the task was cross-tabulated by concurrently viewing performance on the same intellectual operation, one of which was a multiple-choice statement and the other of which was an essay prompt, the pattern broke down. And the error was distributed among all cells. For example, on the first unit, two students answered neither of the application multiple-choice items correctly, yet they wrote excellent essays. In contrast, two students wrote a minimum prediction essay, though they had answered both prediction multiple-choice items correctly. Interestingly, the former type of error was not present after the unit had been organized by knowledge form with graphic organizers.

Clearly students in special education can learn content information. On all of the item analyses, at least some of these students responded correctly (on the multiple-choice items) or persuasively (on the essay items). Although they rarely were judged "excellent" on their written responses, they were frequently judged "adequate." Furthermore, few general education students were judged "excellent." Even a cursory comparison between the two students in the last figure reveals few differences.

In the end, we argue for further research, not on the demographics of testing practices (Putnam, 1992) but on the content and purpose of such testing practices. Obviously, as researchers, we have put more time into analyzing the results of

student performance than most teachers can or would. Yet, we also found specific examples of students learning important concepts and principles, most of which fit well with suggestions by Edgar and Polloway (1994) or Curtis (1991) which emphasize relevance and function.

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APPENDIX A

Chapter Summary

Baseline

8th Grade Social Studies/Baseline
THE GREAT DEPRESSION AND THE NEW DEAL

Using a historical approach, this text carefully traces the series of events surrounding the Great Depression. A consistent theme underlying the description is the effect of various government programs on the American economy.

The chapter begins with a definition of typical business cycles and moves quickly into a discussion of the Depression, including President Hoover's growing unpopularity. A detailed summary of Roosevelt's popularity and rise to the Presidency follows, with a special focus on the birth of his New Deal during the first Hundred Days of his term in office. Then, a thorough list of reforms and acts is defined.

The popularity of the New Deal and criticisms of it are juxtaposed; the Second New Deal and the impacts of these reforms on blacks are then discussed. Finally, the end of the New Deal, including the political struggles between the President, Congress, and the Supreme Court, and a summary of its overall importance are discussed.

Many visual aids are used throughout the chapter, typically with detailed captions. Several topics are given special focus, such as "The Dust Bowl" section (p. 750).

The text's coverage of the Great Depression is very comprehensive and equitable. No one facet of the Great Depression, such as the Stock Market Crash, is accentuated at the expense of other components. Because it is so long and thorough, the material is appropriately sectioned off into short parts which have review questions.

The text incorporates a high number of facts, some of which are less important. A large amount of numbers and statistics are often quoted (i.e.

"Americans spent $10.9 billion in food stores in 1929. Although the population increased in every year, Americans did not spend that much on food again until 1941" [p. 738].) There are also seductive details occasionally interspersed in the text; for example, special attention is given to Franklin D. Roosevelt's polio condition:

> *The next year, Roosevelt spent his usual vacation at his summer home in Campobello, Canada. One day in August 1921 he helped put out a brush fire while on an outing with his children. He returned home tired and chilled to the bone in his wet swimming suit. That night he burned with fever. Within a few days his legs were completely paralyzed. He had a severe case of polio. (p. 743)*

There is also a discrepancy between the text's emphasis and the teacher's emphasis. The text highlights many extraneous words alongside words which represent more useful concepts. For example, the bold-type word **ghettos** (p. 758) represents a broader and more transferable idea than the words **Bonus March** (p. 742), which specify a singular event. Yet, both are presented as equals because they are both in bold-type.

The text does not utilize opportunities to repeat concepts. For example, the chapter begins with a discussion of the **business cycle** before it introduces the events of the Great Depression. Later, in a summary of the significance of Roosevelt's New Deal, a perfect opportunity to reiterate the concept of business cycles appears when the text discusses how the economy is linked to government spending (p. 768). Other opportunities for the reiteration and illustration of several key concepts appeared in the chapter.

The activities at the end of the chapter, while often rooted in the use of key concepts from that chapter, may not serve to enhance learning without teacher guidance. For example, the first Activity (p. 769) calls for students to make a diagram which shows the business cycle. Students focus on the actual

activity of assembling a diagram rather than thinking about the concept they are representing.

Teachers may wish to downplay the use of facts, particularly those with numbers and dates, when creating homework and test questions. Frequently presented in the book, fact-based information is difficult for many students to learn and remember.

Another adaptation teachers will need to make concerns deciding which key concepts to highlight for their students. As discussed above, the text accentuated ideas of primary importance to the same extent as ideas of secondary importance in bold-type; thus, teachers will need to define for themselves which ideas are the most important, cover broader ideas, etc., and create their own list of key concepts, as the teachers in our study did.

Once the teacher extracts these important concepts, it will be important to make sure they are repeated at appropriate times during instruction. The text does not repeat many key words when they could be coupled with new situations. The teacher will need to point out these examples to the students as the material is read because the text does not necessarily state the connection.

Some of the chapter-end activities also have value for reiterating or applying key concepts; however, the teacher may need to frame this instruction and make sure that students understand the concept or principle value underlying each activity. A teacher-led discussion of the attributes and principles of the business cycle both before and after the activity will help frame the instruction so that the activity's value is increased.

APPENDIX B

Target Words

Baseline

TEACHER	*TARGET WORDS*
Social Studies	
Teacher 1	Alphabet Soup (AAA, CCC, NRA, REA, TVA, WPA) Dust Bowl Fair Labor Standard Act Fire Side Chats Hundred Days Migrant Workers New Deal Social Security Act Stock Market Crash-1929 The Great Depression
Teacher 2	Alphabet Soup (AAA, CCC, NRA, REA, TVA, WPA) Dust Bowl Fair Labor Standard Act Fire Side Chats Hundred Days Migrant Workers New Deal Social Security Act Stock Market Crash-1929 The Great Depression

APPENDIX C

Content Planning Worksheet

Baseline

CONTENT PLANNING WORKSHEET

Date: ***4/26/93***

Teacher: ***8th Grade Social Studies Team***

Class: ***Social Studies***

Textbook: ***American History***

Other Curriculum Materials: ***Video: "Places in the Heart"***

Approximate Schedule of Content to be Delivered

Week	Dates		Textbook Unit	Textbook Chapters	Quiz Dates	Test Dates
1	From: 4/26	To: 5/7				
2	From:	To:				
3	From:	To:				
4	From:	To:				

KEY CONCEPTS

1. Alphabet Soup-AAA, CCC, NRA, REA, TVA, WPA
2. Dust Bowl
3. Fair Labor Standard Act
4. Fireside Chats
5. Hundred Days
6. Migrant Workers
7. New Deal
8. Social Security Act
9. Stock Market Crash-1929
10. The Great Depression
11.
12.

IMPORTANT IDEAS

1. Understand both the psychological and economic impact on Americans during the Great Depression.
2. Great Depression-define the New Deal and the change it brought about.
3. Identify three consequences or three social changes that the New Deal brought about.

APPENDIX D

Test

Baseline

First Name	Last Name	Date
Teacher	Class Period 1 2 3 4 5 6 7	

8th GRADE SOCIAL STUDIES
BASELINE TEST

1. During the Depression years, putting people back to work had the most benefit in helping
   a. family unity.
   b. agricultural practices.
   c. economic growth.
   d. social reforms.

2. What is the effect of establishing insurance programs (like old age pensions and unemployment)?
   a. Businesses make better investments.
   b. People feel more secure and positive.
   c. More people can participate in the work force.
   f. People have more money to spend on things.

3. The FDIC guarantees that people's bank savings are protected. The reason this program started was to make sure that
   a. people didn't panic and make a run on banks.
   b. enough money was available for investment.
   c. big companies needed money from small companies.
   d. banks needed to be regulated by the government.

4. Select the conditions that were most prominent in allowing unions the right to organize
   a. Legislative enactments allowing codes of fair competition.
   b. Exposure of poor working conditions in factories.
   c. Establishment of banking and economic reforms.
   d. Movement (migration) of people westward.

5. If the National Industrial Recovery Act that allowed price fixing among companies had not worked successfully to stimulate private enterprise, what would have happened?
   a. Small companies would have gone out of business.
   b. More jobs would have been created by businesses.
   c. Firms would have produced more goods that could not be sold.
   d. Unions would have dictated what products should be made.

8th GRADE SOCIAL STUDIES
BASELINE TEST

6. If you were the President of the United States and wanted your reform programs to be adopted and not repealed by Congress or overturned by the courts, select the most likely strategy to accomplish your goal.
   a. Convince Congress to pass particular laws.
   b. Stack the courts with judges you've picked.
   c. Hold fireside chats on the radio.
   d. All of the above.

7. Laws like the National Industrial Recovery Act and others were passed to make the economy more stable, so people would have more faith in the government's commitment to people, to enhance investments, and stimulate participation in the economy (so people could get jobs and buy things). Describe another way to achieve this outcome (like banking reforms, social and welfare programs, and jobs programs). Give specific examples from this time period and describe why they would help.

8. The economy has not been doing well lately. Factories have not been productive and many people are out of work. You have just been elected president. You believe the federal government should take a strong hand in regulating banks, industry, and social programs. Most members of Congress agree with you. However most of the justices on the Supreme Court do not. These people believe the federal government should not interfere with the economy or try to regulate industry.
   You propose legislation that will help stimulate the economy by creating jobs. Your legislation also will regulate the size of large corporation and help unions organize.

   Write one or two paragraphs to what is likely to happen to your program. Tell what steps you could take to make sure your stands up in court if Congress passes it.

9. You have been elected president of a large country. The country is in the middle of a Great Depression. Farms have failed because of poor farming practices and five years of drought. People have lost confidence in the economy and the stock market has crashed. Factories have closed because people don't have money to buy goods. Banks have been poorly regulated and now many of these have closed. Many people are out of work and there are many homeless families. What is the best way to get your country back on its feet? Which kind of reform do you think would be most effective? Mark the blank beside the letter of the action you would take.

_____A. Create projects that would create new jobs to get people back to work.
_____B. Create social programs that would help the homeless and feed hungry people.
_____C. Enact legislation that would regulate banks and the stock market.

Write one or two paragraphs that explain your answer. If you think you should enact a jobs program, tell why. If you think you should enact social programs, tell why. If you think you should regulate the banks and stock market, tell why.

_____

_____

_____

_____

_____

APPENDIX E

Student Response Samples

Baseline

Student ID# 2004

7. Laws like the National Industrial Recovery Act and others were passed to make the economy more stable, so people would have more faith in the government's commitment to people, to enhance investments, and stimulate participation in the economy (so people could get jobs and buy things). Describe another way to achieve this outcome (like banking reforms, social and welfare programs, and jobs programs). Give specific examples from this time period and describe why they would help.

SS.I, Salvation Army, red cross

8. The economy has not been doing well lately. Factories have not been productive and many people are out of work. You have just been elected president. You believe the federal government should take a strong hand in regulating banks, industry, and social programs. Most members of Congress agree with you. However most of the justices on the Supreme Court do not. These people believe the federal government should not interfere with the economy or try to regulate industry. You propose legislation that will help stimulate the economy by creating jobs. Your legislation also will regulate the size of large corporation and help unions organize.
Write one or two paragraphs of what is likely to happen to your program. Tell what steps you could take to make sure your program stands up in court if Congress passes it.

I think that it will work. I think they should start Social Security and reforms, and then things like that. more jobs should be made

Student ID# 2004

9. You have been elected president of a large country. The country is in the middle of a Great Depression. Farms have failed because of poor farming practices and five years of drought. People have lost confidence in the economy and the stock market has crashed. Factories have closed because people don't have money to buy goods. Banks have been poorly regulated and now many of these have closed. Many people are out of work and there are many homeless families. What is the best way to get your country back on its feet? Which kind of reform do you think would be most effective? Mark the blank beside the letter of the action you would take.

__A. Create projects that would create new jobs to get people back to work.
__B. Create social programs that would help the homeless and feed hungry people.
__C. Enact legislation that would regulate banks and the stock market.

Write one or two paragraphs that explain your answer. If you think you should enact a jobs program, tell why. If you think you should enact social programs, tell why. If you think you should regulate the banks and stock market, tell why.

If you create work jobs more people are at work and more things are being bought to help the economy, and end this country's slump.

APPENDIX F

Chapter Summary

Follow-Up

8th Grade Social Studies/Follow Up
WORLD WAR II

This chapter explores at length the unfolding events of World War II. Using a historical approach, it traces America's shift from isolationism into increasing support for the Allied Powers, and finally, total involvement in the War.

As the growing aggression of the totalitarian states of Germany, Italy, and Japan is described, America's reactions under Roosevelt are summarized, as are the changes in American sentiment about the neutrality controversy. A detailed description of the attack on Pearl Harbor is given; also treated are the experiences of blacks during the wartime, the experiences of Japanese-Americans, and technological advances. Finally, the chapter culminates with details of American war efforts in North Africa, Europe, and the Pacific. The chapter ends with a summary of the U.S. atomic bombing of Japan.

The historical lineage approach used builds on the perspective of American reactions and involvement. It also is used to convey the nature of Franklin D. Roosevelt's political abilities and maneuvers, as well as the shifting attitudes and sentiments of the American public.

Review questions are listed at the end of each section, and many pictures of wartime events and memorabilia fill the margins. Several maps are included, as are "Building Skills" and "Reading Practice" sections. Small vignettes highlight specific events, i.e. "The Flag Over Iwo Jima" (p. 801). The end of the chapter includes a Review and Test with identification, short answer, cloze, matching, and chronological order questions, as well as activity suggestions.

Much to its credit, this text does not focus excessively on the holocaust or any other singular event. Rather, it covers equally the events surrounding the historical lineage it develops.

However, this chapter has several shortcomings. First, memorabilia and maps interspersed throughout the chapter could have been used more carefully. For example, a series of small progressive maps showing Hitler's gradual spread of power would have been much clearer and more powerful than a detailed verbal description:

> *In April 1940 Hitler invaded Denmark and Norway. On May 10 Nazi tanks swept into the Netherlands and Belgium. A few days later German troops broke through the French defenses at Sedan.* (p. 778)

The highly fact-based presentation of the material sometimes confounds the strands of history that are being developed. For example, in describing destroyers-for-bases trades made by President Roosevelt, the number of destroyers and the length of the lease are cited (p. 779)-- confounding details which obfuscate the larger idea that trades were made between the Americans and British before the U.S. was directly involved in the war.

As in the previous chapter, words which represent important concepts are highlighted equally with those that are of secondary importance. For example, **Battleship Row**, the name of the section of Pearl Harbor where ships were docked, is set in bold-type, the same as the **Holocaust**, a much broader notion.

Furthermore, concepts which should naturally cross-link are not compared or referenced to each other. The Nazi **concentration camps** described in one part of the chapter, for example, are not mentioned later when **internment camps** that Japanese-Americans were sent to are described. While there are some fundamental differences in why the two groups of people were sent to these different camps, some similarities between the two camps conceptually exist and may be a useful learning link for many students.

The use of review questions at the end of each section is a good idea, but the particular ones used do not stimulate problem solving skills; they prompt simple recall of the factual information students have just read.

Finally, many of the ideas which are not highlighted in the text are indeed important concepts or principles which should be placed in bold-type. In a discussion about increasing demand for weapons and supplies (p. 785-6), *shift in production* is described but not highlighted. This would seem to be an important concept.

Teachers could support student learning in the topics of invasion and growth of power by providing a series of maps which clearly show the progression of, in this case, Nazism, Fascism, and the Japanese conquests. This would remove reliance on student knowledge of various countries.

It may be necessary for teachers to help students focus on the important ideas embedded in the text and avoid highly specific details which are unimportant to understanding the overall themes. This can be done in part by having students define the general attributes of each important concept rather than giving specific examples. Text questions to which students are likely to respond by repeating numbers and statistics could also be supplanted with more general, conceptual questions.

Concepts should be cross-linked into even broader ideas, if possible. Teachers might prompt students to make the linkages between several highlighted concepts and between general and more specific ones; students may gain a deeper understanding this way. Then, as students progress through the material in the text, the teacher could reiterate concepts as relevant information reappears.

Finally, while the idea of review questions at the end of each section is a good one, it may be more useful to design questions which prompt the evaluation, prediction, or application use of key concepts learned.

APPENDIX G

Target Words

Follow-Up

TEACHER	*TARGET WORDS*
Social Studies	
Teacher 1	Part 1: Genocide Isolationism Totalitarian War Technology World War Part 2: Japanese Imperialism Nationalism Retaliation War Technology
Teacher 2	Part 1: Genocide Isolationism Totalitarian War Technology World War Part 2: Japanese Imperialism Nationalism Retaliation War Technology

APPENDIX H

Content Planning Sheet

Follow-Up

CONTENT PLANNING WORKSHEET (PART I)

Date: *4/6/93*

Teacher: *8th Grade Social Studies Team*

Class: *Social Studies*

Textbook: *American History*

Other Curriculum Materials: _____

Approximate Schedule of Content to be Delivered

Week	Dates		Textbook Unit	Textbook Chapters	Quiz Dates	Test Dates
1	From:	To:				
2	From:	To:				
3	From:	To:				
4	From:	To:				

KEY CONCEPTS

1. Genocide
2. Isolationism
3. Totalitarian
4. War Technology
5. World War
6.
7.
8.
9.
10.
11.
12.

IMPORTANT IDEAS

1. If people are subjected to depressing situations over a period of time they are more vulnerable to control by an aggressive and powerful individual.
2.
3.

CONCEPT DESCRIPTIONS

Concept	*Attributes*	Page	*Examples /Non Examples*	Page
1				
World War	Global involvement		World War I, World War II	
	Conflict over power or territory		Non-example: Civil War	
	Political boundaries and economy			
2				
Totalitarianism	Control by a single leader		Nazis, Fascism	
	Aggressive military control		Non-example: Monarchy, Democracy	
	No political involvement by citizens			
3				
Isolationism	Neutrality-no official intervention		Ex.: Monroe Doctrine, U.S. at the start of World Wars, Switzerland	
	Sympathies exist		Non-ex: U.S. in Kuwait, United Nations involvement	
4				
Genocide	Control by one		Ex: Holocaust, Bosnia, Red Scare	
	System of killing of one race or ideology		Non ex: Waco, Texas	
5				
War Technology	Tanks and planes simultaneously, gases and bombs		Ex: Blitz Kreig, atomic bomb, V 2 Bomb, concentration camp labor	
	Exploiting human life, sophistication, impersonalization		Non-ex: Gandhi	

Notes:

CONTENT PLANNING WORKSHEET (PART II)

Date: *4/6/93*

Teacher: *8th Grade Social Studies Team*

Class: *Social Studies*

Textbook: *American History*

Other Curriculum Materials: _____

Approximate Schedule of Content to be Delivered

Week	Dates		Textbook Unit	Textbook Chapters	Quiz Dates	Test Dates
1	From:	To:				
2	From:	To:				
3	From:	To:				
4	From:	To:				

KEY CONCEPTS

1. Japanese Imperialism
2. Nationalism
3. Retaliation
4. War Technology
5.
6.
7.
8.
9.
10.
11.
12.

IMPORTANT IDEAS

1. If citizens are killed during an aggressive attack, then the attackee is likely to retaliate.
2.
3.

CONCEPT DESCRIPTIONS

Concept	*Attributes*	Page	*Examples /Non Examples*	Page
1				
Japanese Imperialism	Aggression, strong military, control by force and divine right		Japanese Imperialism	
			Non-ex: Democracy, Isolationism	
2				
Retaliation	Getting even by different methods-goes beyond defense.		U.S. against Japan, Russia against Germany	
			Non-ex: Australians, South Pacific Islanders	
3				
War Technology	Tanks and planes simultaneously, gases and bombs, exploiting humans,		Ex: Jungle Warfare, Blitz Kreig, Kamikaze, PT Boats	
	sophistication, impersonalization.			
4				
Nationalism	Patriotic Fervor, Support for leader or idea		Ex: rationing the war effort	
			Non-ex: riots in L.A.	

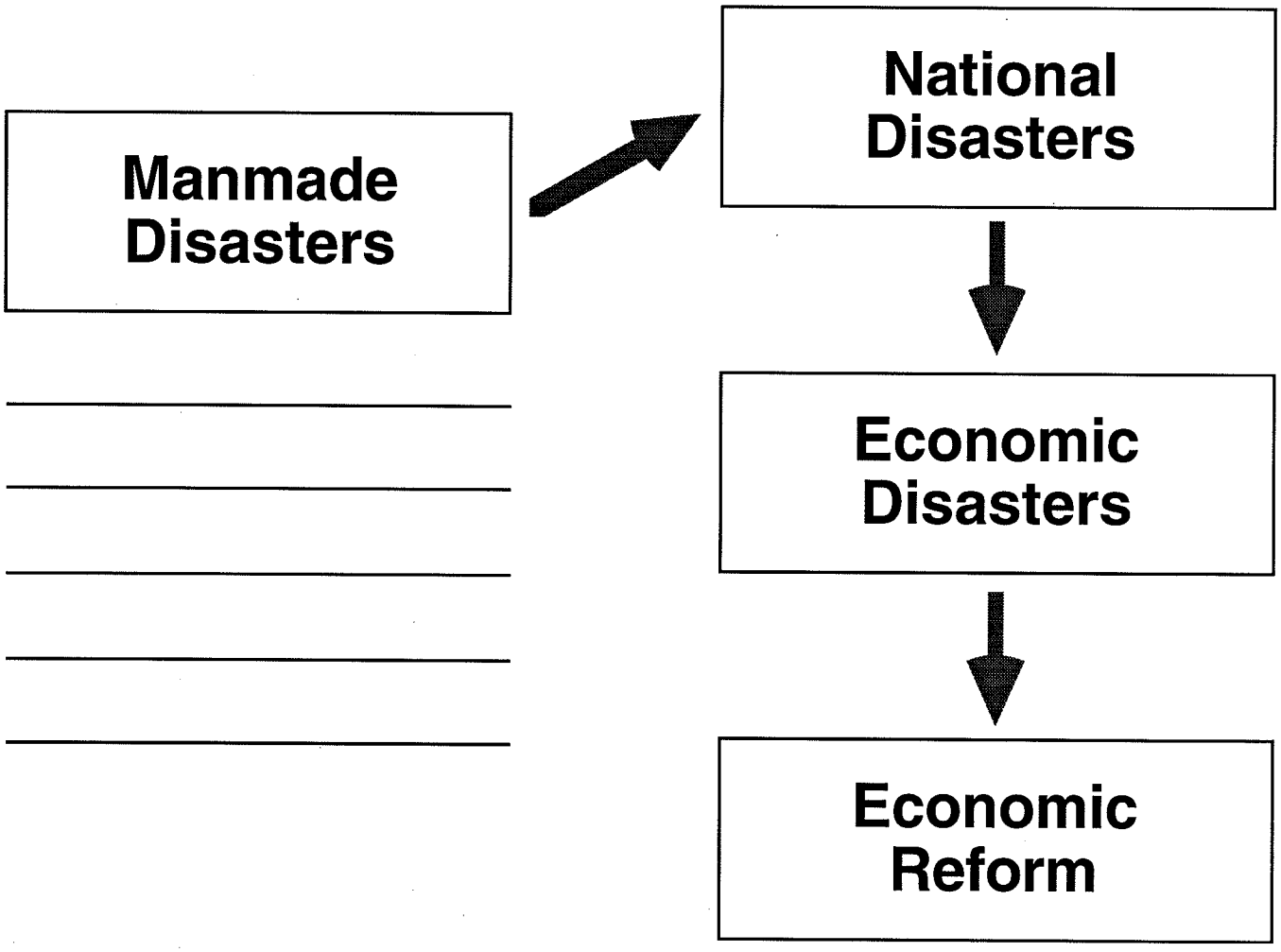
Notes:

APPENDIX H

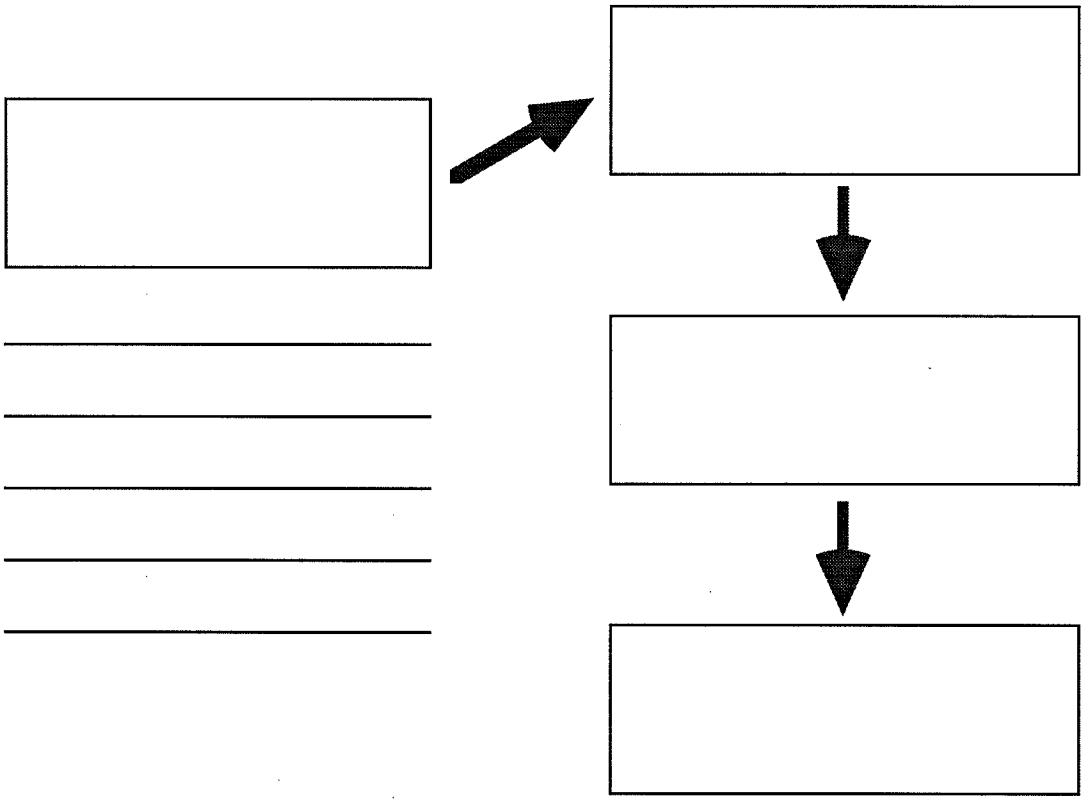
Graphic Organizers

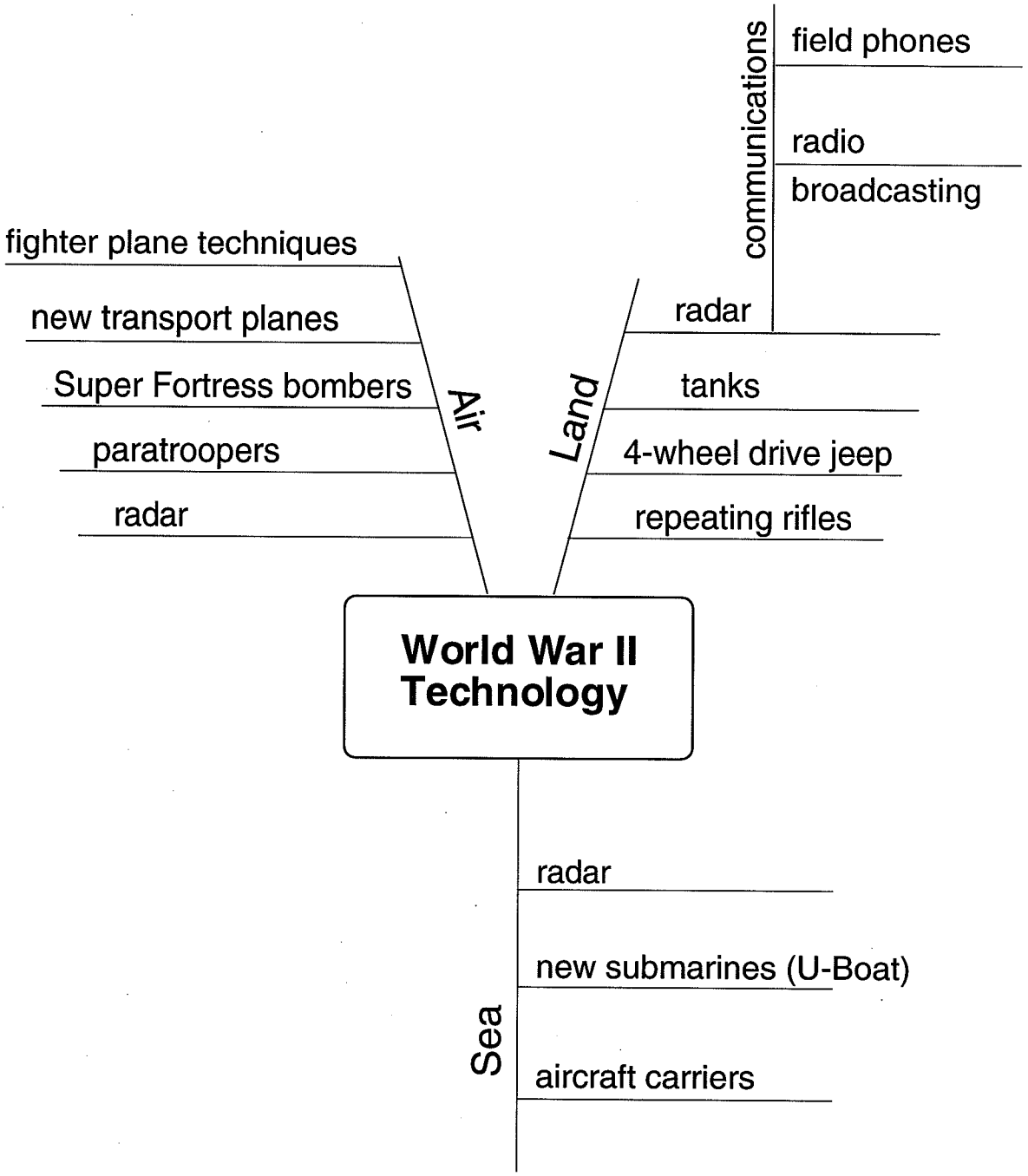
Follow-Up

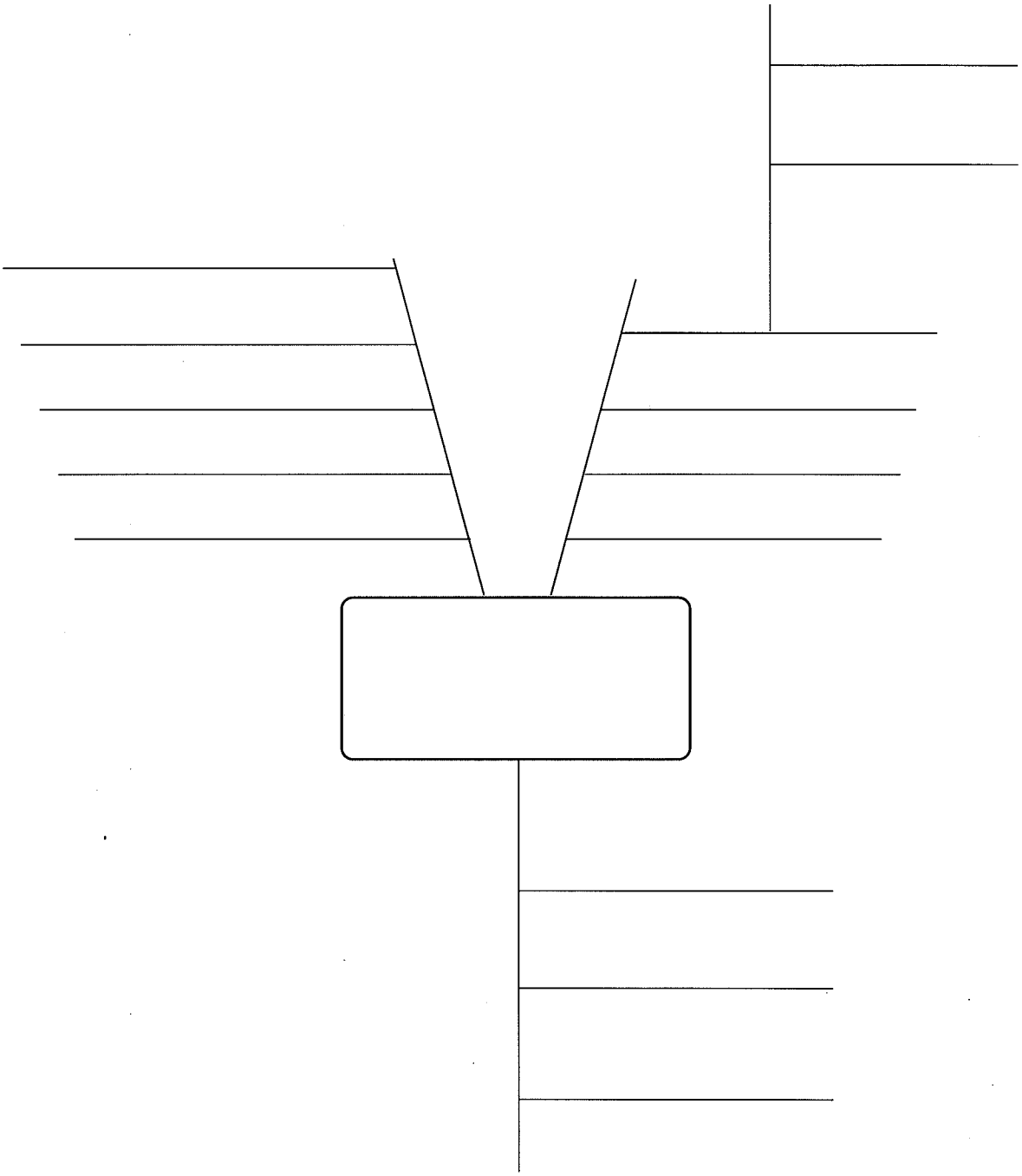
Economic Background
World War II



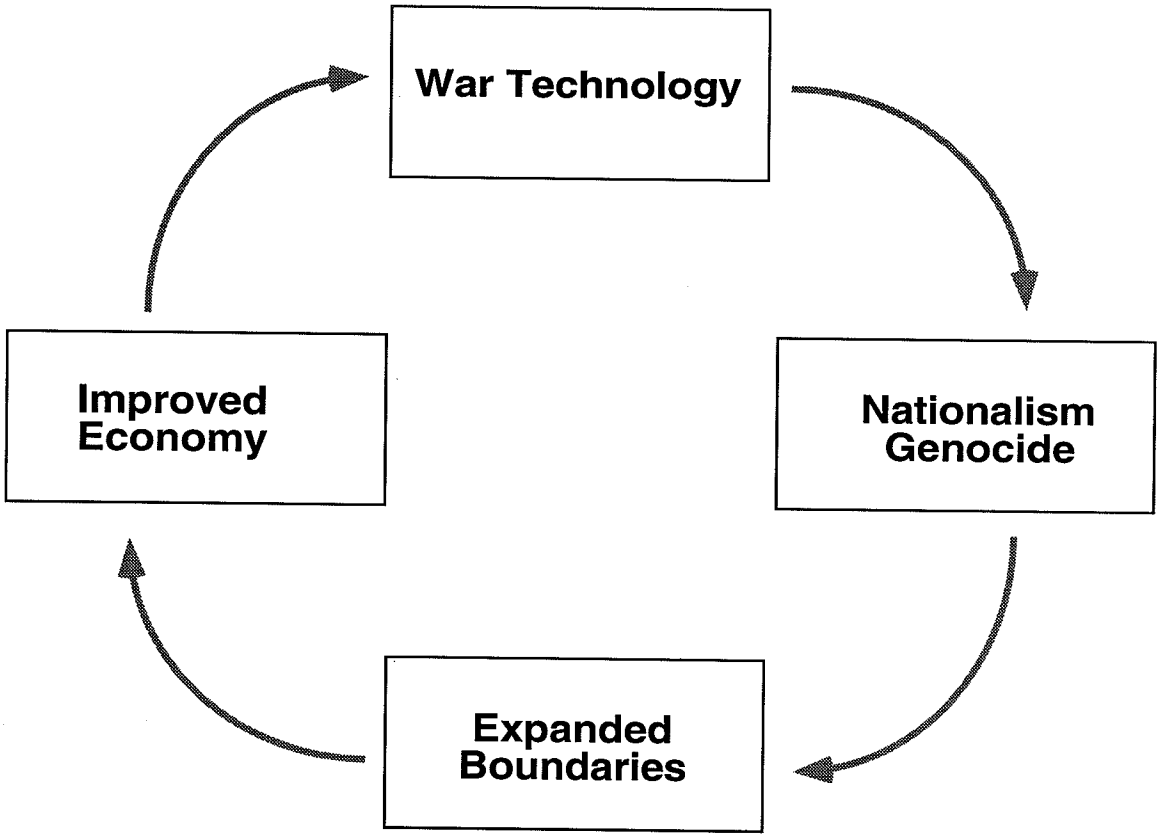
Economic Background
World War II

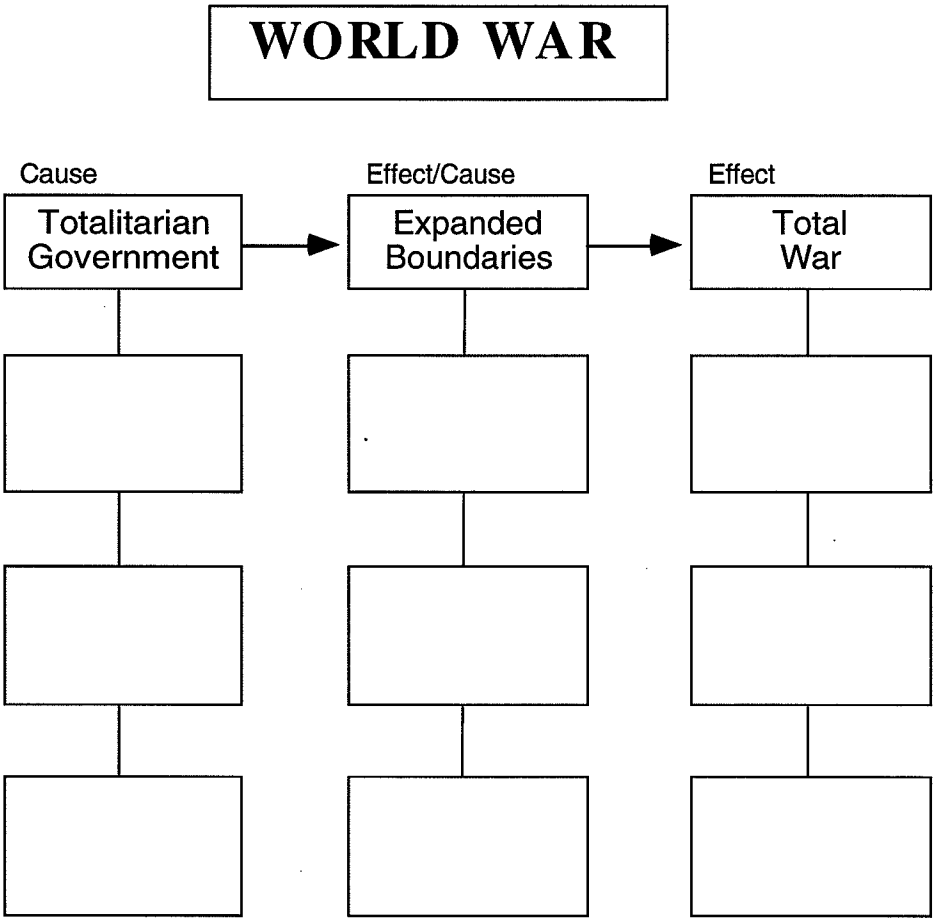



World War II Technology
Air
fighter plane techniques
new transport planes
Super Fortress bombers
paratroopers
radar
Land
radar
tanks
4-wheel drive jeep
repeating rifles
communications
field phones
radio
broadcasting
Sea
radar
new submarines (U-Boat)
aircraft carriers

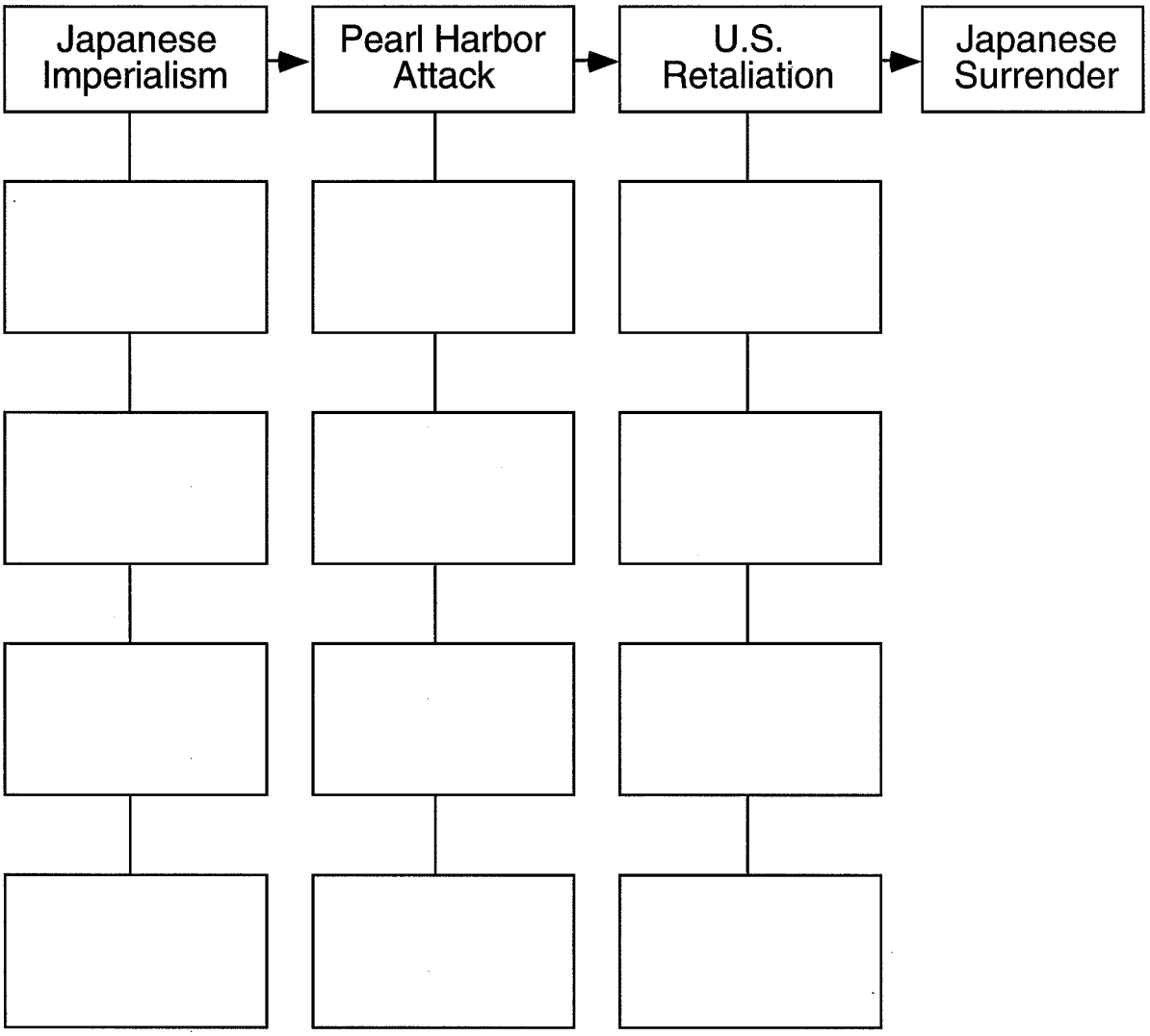


NATIONALISM




WORLD WAR
Cause
Effect/Cause
Effect
Totalitarian Government
Expanded Boundaries
Total War

U.S. Involvement in World War II



APPENDIX I

Test

Follow-Up

8th GRADE SOCIAL STUDIES
FOLLOW-UP TEST

Name_____ Date_____ Teacher_____

1) What conditions are necessary for a policy of isolationism to exist in a country?
a) supplying aid to another country
b) non-involvement in other political actions
c) sympathies for another country
d) actively supplying arms to another country

2) What is an effect of a totalitarian form of government?
a) living peacefully with neighboring countries
b) expanding boundaries with military force
c) citizens involved in decision making
d) people feeling more secure about the future

3) When the practice of genocide is occurring within a country, a likely outcome is:
a) everyone's standard of living improves
b) the military loses power and influence
c) the quality of living deteriorates for everyone
d) minorities suffer at the hands of the government

4) Select the condition(s) that most likely lead to the rise of the Nazi party (National Socialists).
a) poor economy
b) strong leadership
c) trust in the state
d) all of the above

5) The immediate result of the Blitz Kreig on the countries being invaded was:
a) crushing defeat
b) P.O.W. camps
c) undamaged land
d) economic decline

6) Before Hitler rose to power, Germany was experiencing a severe economic depression. After his rise to power, improved economic conditions existed; people were working again, people were hopeful about the future and had faith in their government. What happened in this country to bring about the improved economy?

_____

_____

_____

_____

7) You are a citizen of Utopia and are prospering and successful for the first time in many years. You believe your government is responsible for the growing economic success. However, you recently have become aware of the government's aggressive and brutal techniques to achieve this economic prosperity. Your feelings of apathy have suddenly changed to outrage and fear, and you feel threatened by the government. What actions might you take? Why would you do this and what do you hope to accomplish?

_____a. promote citizen awareness
_____b. establish resistance groups
_____c. provide assistance for victims

_____

_____

_____

_____

APPENDIX J

Student Response Samples

Follow-Up

Student ID# 2004

6. Before Hitler rose to power, Germany was experiencing a severe economic depression. After his rise to power, improved economic conditions existed; people were working again, people were hopeful about the future and had faith in their government. What happened in this country to bring about the improved economy?

The economy improved mostly because of the National socialists, or NAZI's. When Hitler gained power in Germany the new Army started taking over other European countries. To do this they needed weapons and ammunition this created jobs for civilians, and with more jobs the economy rose.

7. You are a citizen of Utopia and are prospering and successful for the first time in many years. You believe your government is responsible for the growing economic success. However, you recently have become aware of the government's aggressive and brutal techniques to achieve this economic prosperity. Your feelings of apathy have suddenly changed to outrage and fear, and you feel threatened by the government. What actions might you take? Why would you do this and what do you hope to accomplish?

____a. promote citizen awareness
____b. establish resistance groups
____c. provide assistance for victims

I would help the citizens of Utopia be aware of what is going on. I would help them understand the problem so we can overcome it much better. I would organize a committe to talk to the government to try ~~and stop~~ compromise a solution to the problem so it can be stopped

APPENDIX K

Trestia's Dictator

Follow-Up

Name_____ Date_____ Teacher_____

Trestia's Dictator

Trestia is a country with many economic and social problems. It has barely recovered from a series of wars which have left the people afraid of attacks and takeovers by other countries' military forces. Another problem is that since the war, the social classes have been very imbalanced, and most of the people are poor. This is causing a lot of social tension. Finally, most citizens feel that they have little say in the government's decisions.

Now, one citizen has risen up to become a dictator in Trestia. He has become very popular and powerful because he has promised Trestians security from other aggressive nations, he is balancing the country's wealth, and he is encouraging all people to be active in the government.

Which of these three reasons best explains the dictator's growing popularity? Place an "X" next to your choice below.

_____A. He pledged to protect Trestians from military attacks.

_____B. He is balancing Trestia's wealth.

_____C. He is giving people more power in the government.

APPENDIX L

Student Response Sample

Follow-Up

Student ID# 2004

Trestia's Dictator

Trestia is a country with many economic and social problems. It has barely recovered from a series of wars which have left the people afraid of attacks and takeovers by other countries' military forces. Another problem is that since the war, the social classes have been very imbalanced, and most of the people are poor. This is causing a lot of social tension. Finally, most citizens feel that they have little say in the government's decisions.

Now, one citizen has risen up to become a dictator in Trestia. He has become very popular and powerful because he has promised Trestians security from other aggressive nations, he is balancing the country's wealth, and he is encouraging all people to be active in the government.

Which of these three reasons best explains the dictator's growing popularity? Place an "X" next to your choice below.

_______A. He pledged to protect Trestians from military attacks.

_______B. He is balancing Trestia's wealth.

_______C. He is giving people more power in the government.

He promised the country protection from other countries [illegible] attacking their countrie. He got popular with this because the people were scaird of an attack. the people believe that he will protect them they just got done fighting one war and he believes they're safe